Honolulu On The Move

April 2008

An Update on the Honolulu High-Capacity Transit Corridor Project

Aloha! This month we commemorate Earth Day. Here are a few ways the rail project will interact with our environment.

Improves Air and Water Quality

- **Less island-wide air pollution because of reduced tail pipe exhaust.**

- **Less green house gas emissions which are a major cause of global warming.**

- **Less island-wide water pollution because of less vehicular oil dripping and rubber tire debris getting into local water.**

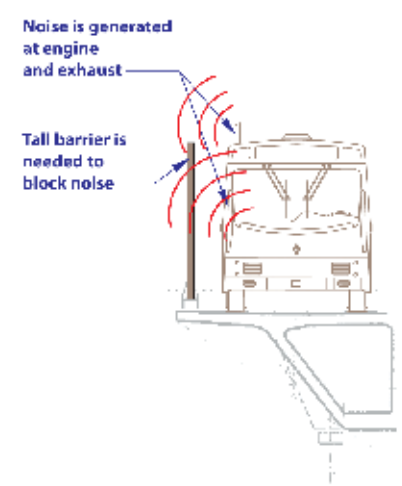
Reduced Dependence on Foreign Fossil Fuels

Wouldn't it be great to have a reliable, convenient alternative to burning fossil fuels to get around? This is beneficial as gas reaches $4/gallon. Imagine when it gets to $5/gallon! By taking the train – you can save money and reduce our dependence on foreign oil.

With an electrical system powering modern rail, we will be able to take advantage of renewable energy sources, such as solar, wind, water, and H-power. Any new technologies that HECO incorporates into their renewable energy portfolio for generation can be used for the transit system and will help the environment.

The Sound of Transit

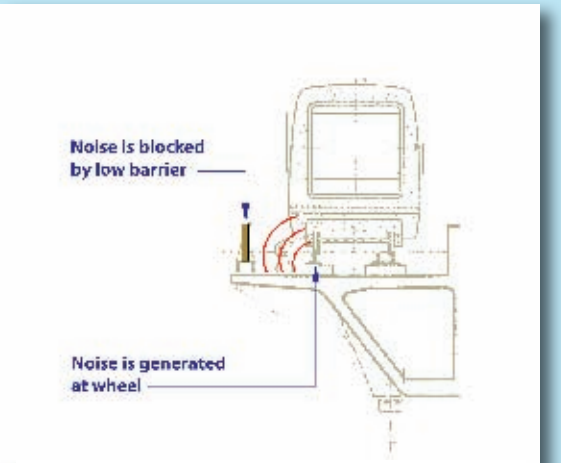
The noise of transit vehicles can be of concern to residents near the guideway. In general, this type of noise is easily remedied with sound barriers that block the source of the noise. Steel-wheel-on-steel-rail systems generate somewhat lower noise levels than a bus-type system and this noise can be more easily and inexpensively reduced to acceptable levels.



RUBBER TIRED BUS-TYPE TRANSIT

That's because the noise from a "bus-type" vehicle which is generally powered by a diesel or hybrid diesel-electric engine, is generated from the engine/exhaust and from the contact between the tires and the pavement. The exhaust system is generally mounted high on the back of the bus, as shown in the diagram. Therefore, most of the noise comes from a high point on the vehicle. To reduce this noise, high noise abatement walls are needed and can be 6' to 8' high along the travel surface.

By contrast, a modern electric rail vehicle's noise is generated only from where the wheels contact the rail, or very close to the travel surface, as seen in this diagram. Noise mitigation in this case would require only a 2' to 3' high abatement wall, costing less than the taller walls needed for a rubber tired system.



MODERN STEEL WHEEL/STEEL RAIL VEHICLE

Newsletter c/o Dept. of Transportation Services
City and County of Honolulu
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Honolulu, HI 96813

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Contact Us

You can reach us by calling the project hotline at **566-2299** or by submitting your comments to **www.honolulutransit.org**.

Call or email us if you would like to receive an electronic version of this newsletter or would like to be removed from our mailing list.

Tropical Climates, Steel Rails and Corrosion

Fact: Steel rails and steel wheels corrode at a rate slower than normal mechanical wear from operation.

Some have been concerned that a steel wheeled system would experience corrosion due to our tropical, humid, salt-air conditions. But, the fact is that normal operations cause wear at a faster rate than corrosion – and that's with an expected operational life of 30 years!

Still not convinced? Take a look at our own OR&L tracks. The tracks are still in use on the Ewa Plain and coast, and visible even on Nimitz Highway leading to the Aala Park train station. And these are over 100 years old!

Honolulu OR&L Tracks

Other tropical cities with steel wheeled transit systems are: Miami, Florida; Bangkok, Thailand; Manila, Philippines; Singapore; Hong Kong; San Juan, Puerto Rico; Shenzhen, China; Rio de Janeiro, Brazil; Recife, Brazil; Lima, Peru; and Caracas and Valencia, Venezuela.

Singapore

Miami, United States